California Monthly Climate Summary
January 2009

Weather Highlights

January was a warm, dry month for 2009. According to the Western Region Climate Center's California Climate Tracker, the monthly average temperature was 44.5°F which is 3.0°F higher than the long-term average of 41.4°F. With a statewide average of 1.10 inches, precipitation for January was only 25% of the long term average. Out of the 115 years of record in the California Climate Tracker, January 2009 ranks as the 8th driest.

High pressure dominated the weather in January. The fronts that did get through were often weak and rain was limited. Fog was an issue at time for the Sacramento and San Joaquin Valleys and Santa Ana winds made an appearance in Southern California. The first significant storm of the year did not arrive until the final week of January which did bring rain to all parts of the state.

Preliminary records, reported on the National Weather Service Record Event Report, show that statewide there were 239 temperature records tied or broken and 2 precipitation records tied and broken for the month. Of the 239 temperature records, 169 were for new high maximum temperatures. Records were set over 19 days of the month and 8 of the 9 Weather Forecast Offices had new records to report. January 13th and 14th both had new high temperature records set across the state. On the 13th, 30 sites set new records and the Santa Ana fire station recorded its warmest January low temperature ever. In fact, it is also the warmest low temperature recorded in the December through March time period. On the 14th, 28 sites set new high temperature records extending from Crescent City to Bishop to Riverside. Oxnard recorded its 2nd highest January temperature and Camarillo tied its second highest January temperature.

For the California Data Exchange Center's (CDEC) network of temperature gages used in this report, 263 stations recorded a minimum temperature below freezing. Statewide extremes from the CDEC network of temperature gages are shown below. Also shown are the monthly average extremes from the CIMIS network. A table of regional average minimum, mean, and maximum temperatures from the CDEC and CIMIS networks is also shown.

Precipitation in January was limited and very different from last year's big storm. The largest amount of precipitation recorded in the CDEC precipitation gages for January 2009 was Cherry Valley Dam in the San Joaquin Basin (Tuolumne River) with 7.10 inches. Normally this station records 9.04 inches of precipitation in January. At the other end of the spectrum, Imperial Valley and Palm Springs in the Colorado River Desert region recorded no precipitation for January. For the CIMIS network, Camino in El Dorado County topped the precipitation charts with 4.09 inches for the month. The 8-Station Index for northern California precipitation recorded only 3 inches in January with eleven days showing precipitation. On

average 9.0 inches of precipitation is recorded for the 8-Station index. This is the 12th driest January in the 8-Station index period of record. Statewide, the average precipitation for January was 31.5% of the long-term average based on the California Data Exchange Center (CDEC) gages. Precipitation percentages by region from the CDEC gages are shown in a table at the end of this document.

For January, the Drought Monitor showed degradation across the northern part of the state due to the dry conditions. The maps for California for January 6, 2009 and February 3, 2009 are shown below. The Drought Monitor maps can be found on the National Drought Mitigation Center's (NDMC) website http://drought.unl.edu/dm/. These maps are largely a reflection of precipitation and soil moisture deficit estimates. The very northwest part of the state is not considered in any drought condition. The rest of California is depicted in either D0 (abnormally dry), D1 (moderate drought) conditions, D2 (severe drought), or D3 (extreme drought) conditions. Maps are updated weekly.

The U.S. Seasonal Drought Outlook for February through April from NOAA depicts California with persisting drought conditions across most of the state. Updates are provided twice per month. Maps and information can be found at http://cdec.water.ca.gov/water_supply.html

Outlooks for the water year 2009 water supply index categories are critical for the Sacramento Basin and dry for the San Joaquin Basin. Water supply information for California can be found at http://cdec.water.ca.gov/water_supply.html. A Historical listing of water year categories for both basins can be found at http://cdec.water.ca.gov/cgi-progs/iodir/WSIHIST.

ENSO Conditions and Long-Range Outlooks

The El Niño/Southern Oscillation (ENSO) is being classified as a La Niña pattern. Equatorial sea surface temperature anomalies for the tropical Pacific for January were around 1°C below average for most regions. The November through January 3-month running mean of the Ocean Niño Index was the 1st consecutive 3-month running mean value to be below the threshold value of -0.5°C which is the minimum period needed for the event to be classified as a La Niña event. Both statistical and dynamical models forecast La Niña conditions to weaken while lasting into spring of 2009. More information can be found at the Climate Prediction Center's web site: http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/ Updates are posted weekly. The latest three month outlook (February through April) from NOAA indicates an equal chance of above, below or near normal temperatures for most of the state with above normal temperatures expected for southern California except for the south coast which is forecast to have below normal temperatures. For precipitation, below average conditions are forecast for locations south of the San Francisco Bay and an equal chance of above, below or near normal conditions north of the Bay Area. The far northwestern part of the state is forecast to have above normal precipitation. Outlook plots and discussions can be fount at http://www.wrcc.dri.edu/longrang/. General weather information of interest

can be found at http://www.noaawatch.gov/. For anomaly information please see http://www.wrcc.dri.edu/anom/cal_anom.html.

Agricultural Data

January marked a time for field preparation, orchard and vineyard pruning, and spraying. Citrus harvest continued with benefits gained by colder temperatures during the month. Rangeland conditions continue to be poor. Supplemental feeding continues. Dairy production was strong with the moderate temperatures. Bee movement into the state for spring pollination continued. For further crop information see http://www.nass.usda.gov/index.asp.

Other Climate Summaries

California Climate Tracker (new product of Western Region Climate Center)
Golden Gate Weather Service Climate Summary
NOAA Monthly State of the Climate Report

Statewide Extremes (CDEC)

High Temperature – 94°F (Camp Pendleton Las Flores, South Coast)
Low Temperature – -10°F (Charlotte Lake, Tulare)
High Precipitation – 7.1 inches (Cherry Valley, San Joaquin Basin)
Low Precipitation – 0 inches (Imperial Valley, Palm Springs Colorado River Desert)

Statewide Extremes (CIMIS)

High Average Maximum Temperature – 75.6^0F (Indio 2, Riverside County)
Low Average Minimum Temperature – 18.5^0F (Buntingville, Lassen County)
High Precipitation – 4.09 inches (Camino, El Dorado County)
Low Precipitation – 0 inches (15 stations)

Statewide Precipitation Statistics

Hydrologic Region	Region Weight	Basin Reporting			Stations Reporting			% of Historic Average	
		Basins	Jan	Oct-Jan	Stations	Jan	Oct-Jan	Jan	Oct-Jan
North Coast	0.27	5	5	5	17	10	9	20.3%	61%
SF Bay	0.03	3	3	3	6	6	6	22.7%	57%
Central Coast	0.06	5	4	4	10	6	6	28.2%	52%
South Coast	0.06	5	5	5	15	12	9	11.6%	71%
Sacramento River	0.26	10	10	10	43	37	36	31.8%	59%
San Joaquin River	0.12	8	7	7	27	25	24	79.8%	79%
Tulare Lake	0.07	5	5	5	27	27	27	47.2%	75%
North Lahontan	0.04	6	6	6	14	12	11	31.4%	59%
South Lahontan	0.06	5	4	4	14	8	8	9.1%	89%
Colorado River	0.03	2	2	2	6	3	2	1.6%	108%
Statewide Weighted Average	1	54	51	51	179	146	138	31.5 %	66.6 %

Statewide Mean Temperature Data by Hydrologic Region (degrees F)

Hydrologic Region	No. Stations	Minimum	Average	Maximum
North Coast	31	23.5	42.6	67.3
SF Bay	18	33.8	48.2	65.6
Central Coast	37	41.7	52.8	71.1
South Coast	65	35.4	55.7	77.1
Sacramento	87	23.0	43.5	68.6
San Joaquin	69	25.7	42.8	63.2
Tulare Lake	13	13.7	38.1	61.6
North Lahontan	29	5.9	31.5	54.1
South Lahontan	20	16.7	39.5	61.3
Colorado River Desert	22	39.2	56.9	75.3
Statewide Weighted Average	391	24.4	43.9	66.9

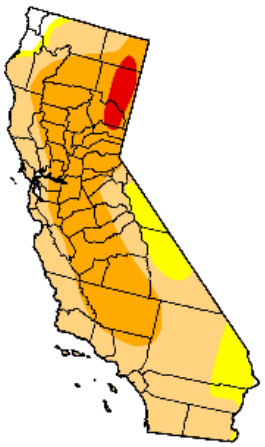
U.S. Drought Monitor

California

January 6, 2009
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	1.7	98.3	88.2	41.3	2.8	0.0
Last Week (12/30/2008 map)	1.7	98.3	88.2	43.0	2.8	0.0
3 Months Ago (10/14/2008 map)	0.0	100.0	95.8	55.1	0.0	0.0
Start of Calendar Year (01/06/2009 map)	1.7	98.3	88.2	41.3	2.8	0.0
Start of Water Year (10/07/2008 map)	0.0	100.0	95.9	55.0	0.0	0.0
One Year Ago (01/08/2008 map)	11.4	88.6	79.8	31.6	0.0	0.0



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

http://drought.unl.edu/dm

Released Thursday, January 8, 2009
Author: Brian Fuchs, National Drought Mitigation Center

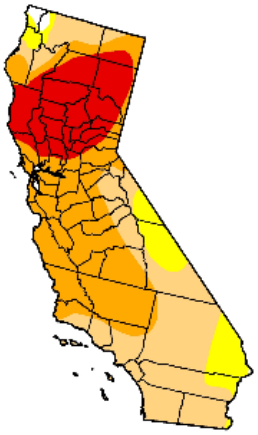
U.S. Drought Monitor

California

February 3, 2009
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.8	99.2	89.4	54.7	19.0	0.0
Last Week (01/27/2009 map)	1.2	98.8	88.2	48.9	15.9	0.0
3 Months Ago (11/11/2008 map)	4.7	95.3	86.0	41.3	0.0	0.0
Start of Calendar Year (01/06/2009 map)	1.7	98.3	88.2	41.3	2.8	0.0
Start of Water Year (10/07/2008 map)	0.0	100.0	95.9	55.0	0.0	0.0
One Year Ago (02/05/2008 map)	18.2	81.8	36.6	14.1	0.0	0.0



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The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

http://drought.unl.edu/dm

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Author: Eric Luebehusen, U.S. Department of Agriculture